

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~[[An]]~~ A computer-implemented attributed debugging system comprising:
a debugger that facilitates debugging of a computer software application; ~~and~~ ~~[[,]]~~
an expression evaluator associated with the debugger that determines details of an object of the computer software application that is a subject of the debugger, the expressions evaluator determines details of the object based upon employs a display proxy associated with ~~[[an]]~~ the object, the display proxy provides relevant features of the object and conceals implementation specifics of the object; and of the computer software application to present debug information associated with the object to a developer.
a variable display component that presents the determined details of the object to a developer.
2. (Currently amended) The system of claim 1, the expression evaluator evaluates an expression associated with the object to determine the details, the expression is implemented in a particular programming language.
3. (Currently amended) The system of claim 2, the programming language comprising at least one of C#, J# ~~and or~~ or Visual Basic.Net.
4. (Currently amended) The system of claim 2, further comprising a plurality of expression evaluators, wherein each expression evaluator is associated with a ~~particular~~ different programming language.
5. (Currently amended) The system of claim 1, the object ~~comprising a hash table~~ comprises a class that includes at least one of a property or a method.

6. (Currently amended) The system of claim 1, the expression evaluator ~~creating~~ creates an instance of the display proxy ~~in a debuggee~~ associated with the object of the computer software application.

7. (Currently amended) The system of claim 1, the display proxy is implemented as a private nested class within the object.

8. (Currently amended) The system of claim 7, the display proxy ~~having~~ has access to private implementation details of the object.

9. (Currently amended) The system of claim 1, further comprising an attribute cache directory that stores an attribute associated with the display proxy, the expression evaluator ~~employing~~ employs the stored attribute to ~~present debug information~~ determine the details of the object.

10. (Currently amended) The system of claim 1, ~~employed to~~ further comprising an editing component that facilitates modifying ~~of~~ a value associated with the object.

11. (Currently amended) The system of claim 1, the ~~expression evaluator~~ variable display further employs an attribute at least one attribute associated with the ~~computer software application~~ object to ~~present debug information associated with the computer software application to the developer~~ that provides a format to display the determined details of an object.

12. (Currently amended) The system of claim 11, the attribute ~~employed to determine~~ specifies at least one of whether a property of the object is displayed or how ~~and whether a type or member~~ the property is displayed.

13. (Currently amended) The system of claim 12, the attribute employing an enumeration to specify the format of the display.

14. (Currently amended) The system of claim 13, the enumeration includes one enumeration value ~~associated with an indication that~~ that indicates the ~~type or member property~~ should not be displayed to the developer.

15. (Currently amended) The system of claim 13, the enumeration includes one enumeration value ~~associated with an indication that~~ indicates if a type is a hierarchical property[[.]] it should be is expanded by default.

16. (Currently amended) The system of claim 13, the enumeration includes one enumeration value ~~associated with an indication that~~ indicates ~~a type should not be~~ a hierarchical property is not expanded by default.

17. (Currently amended) The system of claim 13, the enumeration includes one enumeration value ~~associated with an indication that~~ indicates a ~~target element itself~~ hierarchical property itself should not be shown is not displayed[[.]] ~~but should instead be automatically expanded to have its member(s) displayed and members of the hierarchical property are displayed.~~

18. (Currently amended) The system of claim 11, the attribute ~~employed to~~ specifies what is displayed for a class, ~~and/or field.~~

19. (Currently amended) The system of claim 18, ~~an argument to the attribute~~ includes an argument that ~~comprising~~ comprises a string that is displayed in a value column for an instance of the class, ~~and/or field.~~

20. (Currently amended) The system of claim 18, the argument is associated with ~~one of a~~ field; a property ~~and a method~~ of the class.

21. (Currently amended) A method facilitating attributed debugging comprising:
 receiving a request to examine details of one or more properties of an object in a computer software application being debugged;
 determining whether a display proxy attribute exists for the object, the display proxy provides relevant properties regarding a state of the object and conceals properties related to implementation of the object;
 creating a display proxy for the object in accordance with the display proxy attribute;
 and[[,]]
 examining the display proxy to determine debug information related to the object.
22. (Currently amended) The method of claim 21 further comprising providing the debug information associated with determined by the display proxy to a developer in response to the request to examine the object.
23. (Original) A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 21.
- 24-25. (Cancelled)
26. (Currently amended) An attributed debugging system comprising:
means for receiving a request to debug an object in a computer software application;
means for determining whether a display proxy attribute exists in association associated with [[an]] the object, the display proxy provides relevant properties regarding a state of the object and conceals properties related to implementation of the object; exists; and;
means for creating an instance of the display proxy; in a debuggee;
means for examining the display proxy, means for examining the display proxy comprise means for obtaining values of the provided relevant properties; and[[,]]
means for providing debug information associated with the display proxy in response to [[a]] the request to examine debug the object, the debug information is based at least in part on the display proxy and includes at least the obtained values of the provided relevant properties.

27. (New) A computer-implemented attributed debugging system, comprising:
- a debugger that facilitates debugging a computer software application;
 - an expression evaluator associated with the debugger that examines at least one object of the computer software application, the expression evaluator determines debug information comprising states of the at least one object, the states include values for at least one property of the at least one object,
 - the expression evaluator inspects the at least one object to verify if each of the at least one object includes a display proxy that is a private nested class of the object, the display proxy provides relevant properties of an associated object and conceals properties related to implementation of the object, the expression evaluator examines the display proxy to determine debug information that includes values for the at relevant properties of the at least one object;
 - an attribute cache directory that retains instances of one or more display proxies, the expression evaluator queries the attribute cache directory for instances of display proxies associated with the at least one object, the expression evaluator creates an instance if not retained in the attribute cache directory; and
 - a variable display component that presents the debug information to a developer, the debug information includes values of relevant properties of the at least one object determined from examination of display proxies of the at least one object.